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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,772	03/03/2004	Yasushi Hiraoka	0757-0284P	3207

2292 7590 10/20/2008  
BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
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PHUNKULH, BOB A

ART UNIT	PAPER NUMBER
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2419

NOTIFICATION DATE	DELIVERY MODE
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10/20/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/790,772	<b>Applicant(s)</b> HIRAOKA ET AL.	
	<b>Examiner</b> BOB A. PHUNKULH	<b>Art Unit</b> 2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6 is/are allowed.
- 6) ☒ Claim(s) 1,4,5 and 7 is/are rejected.
- 7) ☒ Claim(s) 2-3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This communication is in response to applicant's 06/18/2008 amendment(s)/response(s) in the application of **HIRAOKA et al.** for "**TDMA COMMUNICATIONS APPARATUS**" filed 03/03/2004. The amendment/response to the claims have been entered. No claims have been canceled. No claims have been added. Claims 1-7 are now pending.

### ***Claim Objections***

Claim 7 is objected to because of the following informalities: the claimed subject matter "ITDMA" appears to be a typo, please correct the claimed subject to –TDMA--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by CAIN et al. (US 6,798,761), hereinafter CAIN.

Regarding claim 1, CAIN discloses a TDMA communications apparatus for carrying out communication using TDMA technology in which a frame is divided into a plurality of slots (see figure 3), a slot being treated as a unit of data transmission, and said TDMA communications apparatus performs TDMA communication while reserving slots for own transmission, said TDMA communications apparatus comprising:

conflict avoidance means for avoiding slot allocation conflicts with other stations by transmitting a message indicating that own station will re-reserve another slot for own transmission within a predefined period upon detecting that a slot reserved for own use has been reserved by another station as well (the controller schedules a respective semi-permanent time slot for each time frame to establish a communication link with each neighboring mobile node and leaves at least one available time slot in each time frame, the controller also schedules the at least one available time slot to also serve the communication link with a neighboring mobile node based upon link communications demand, and the controller waits a time period to resend another request upon simultaneously sending a request to an other mobile node and receiving a request from the other mobile node without receiving a corresponding reply, see col. 2 lines 17-27).

Regarding claim 4, CAIN discloses the predefined period is set based on the speed of a mobile unit on which said TDMA communications apparatus is installed (see col. 11 lines 29-38).

Regarding claim 7, CAIN discloses a TDMA communications apparatus for carrying out communication using TDMA technology in which a frame is divided into a plurality of slots (see figure 3), a slot being treated as a unit of data transmission, and said TDMA communications apparatus performs TDMA communication while reserving slots for own transmission, said TDMA communications apparatus comprising:

means for recovering a report rate by allocating a new slot within a defined next selection interval(SI) using ITDMA protocol when the communication apparatus detects that the own slot within the next SI has been erased or overridden by other stations or is not found due to a traffic situation (the controller schedules a respective semi-permanent time slot for each time frame to establish a communication link with each neighboring mobile node and leaves at least one available time slot in each time frame, the controller also schedules the at least one available time slot to also serve the communication link with a neighboring mobile node based upon link communications demand, and the controller waits a time period to resend another request upon simultaneously sending a request to an other mobile node and receiving a request from the other mobile node without receiving a corresponding reply, see col. 2 lines 17-27).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by MARSAN et al. (US 6,570,861), hereinafter MARSAN.

Regarding claim 5, MARSAN discloses a TDMA communications apparatus for carrying out communication using TDMA technology in which a frame is divided into a plurality of slots, a slot being treated as a unit of data transmission, and the TDMA communications apparatus performs TDMA communication while reserving slots for own transmission, the TDMA communications apparatus comprising:

means for evaluating the level of a signal received in each slot for a plurality of times and judging a slot in which the level of the received signal is less than a threshold for a specific number of times as a free slot which may be reserved for own transmission without causing a conflict with other stations (the communication system determines a signal strength of a signal received from a user of the communication resource and, based on the signal strength determination, assigns the user one or more of the communication channels that are then available, see abstract).

### ***Allowable Subject Matter***

Claim 6 is allowed.

Claims 2-3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

**Any response to this action should be mailed to:**

The following address mail to be delivered by the United States Postal Service (USPS) only:

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**or faxed to:**

(571) 273-8300, (for formal communications intended for entry)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Jay Patel**, can be reach on **(571) 272-2988**. The fax phone number for this group is **(571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/BOB A PHUNKULH/  
Primary Examiner, Art Unit 2419